A peptide for complexing with a drug to protect the drug from antibody inactivation during delivery, comprising determining a phage coat peptide sequence from the phage selected in claim 1 and associating the peptide with the drug to be delivered.

15. (Amended) [The drug delivery peptide of claim 14 wherein the peptide contains a carboxy terminal amino acid selected from the group consisting of arginine and lysine.]

The peptide of claim 14 wherein the peptide contains a carboxy terminal amino acid selected from the group consisting of arginine and lysine.

16. (Amended) [The drug delivery peptide of claim 14 containing a tyrosine.]

The peptide of claim 14 wherein the peptide contains a tyrosine.

REMARKS

Sequence Listing:

The specification has been amended to include a sequence listing for the sequences found in the specification. A sequence listing paper copy has been submitted with this Amendment as additional sheets to the specification to be inserted before the claims however there are no sheets to be replaced. The sheets do not include new matter. A computer readable form has also been submitted and it is the same as the paper copy that has been added.

Rejection of claims under 35 U.S.C. 102:

Claims 1-3, 6-8, 13-14 are rejected under §102(b) as being anticipated by Pasqualini *et al.* Applicants disagree.

The Office Action states that the Pasqualini prior art recovered phage after injection into the tail veins of rats. The Action argues that since the recovered phage were not inactivated, they must have peptide sequences which prevent phage inactivation.

However, Applicants have found that only a certain amount of phage inserted into blood will be inactivated. It appears that the capsid protein sequences do not affect activation if enough phage are inserted. This finding implies that only a fixed amount of antibody is present in blood to attack phage. After the antibody limit, phage are not inactivated. Therefore, the Pasqualini reference does not describe phage that are resistant to inactivation but phage that were not inactivated. Conversely, Applicants' have shown examples indicating peptide sequences or individual amino acids that protect phage and are useful in resisting antibody attack.

Additionally, Pasqualini et al. used filamentous phage that has peptides displayed at the protein amino terminus. In T7 phage, peptides are displayed at the carboxy-terminus of the coat protein. According to Applicant's data, it appears that natural antibodies react much more efficiently, if

not exclusively, with carboxy-terminal peptides. As a result, filamentous phage cannot be used for selecting peptides interacting with blood proteins.

Thus, the Pasqualini reference does not anticipate the Applicants' amended claims.

Applicants believe that the amended claims overcome the §102 rejection.

Objection to the Specification under 35 U.S.C. 112:

Claims 1-16 have been rejected under §112.

The claims have been amended as suggested to obviate the objections and rejections stated in the Office Action.
The Examiner's objections and rejections are now believed to be overcome by this response to the Office Action. In view of Applicants' amendments and discussion, it is submitted that claims 1-16 should be allowable and Applicants respectfully request an early notice to such effect.

Respectfully submitted,

M K Johnson

Mark K. Johnson Reg. No. 35,909
P.O. Box 510644
New Berlin, WI 53151-0644
(262) 821-5690

I hereby certify that this correspondence is being deposited with the United States Postal Service as EXPRESS MAIL - POST OFFICE TO ADDRESSEE, in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, DC 20231
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M K Johnson
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